

Notice of Allowability

Application No.

10/601,603

Examiner

Patrick J. Assouad

Applicant(s)

AL-HAMRANI, MAJED

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Pre-Amdt filed 2/11/05 and Declaration filed 2/11/05.
2. ☒ The allowed claim(s) is/are 1-7,9-18,20-23,25,27,28,30 and 32.
3. ☒ The drawings filed on 23 June 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 2/11/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


6/8/05

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

Applicant has filed a proper Declaration on 2/11/05; thus, Applicant's own Master's Thesis dated 6/25/03 is now not considered as prior art. The closest prior art is Al-Hamrani et al., "Power Factor Correction in Industrial Facilities Using Adaptive Excitation Control of Synchronous Machines", 6/17/02, supplied by Applicant, and also authored by Applicant. However, the prior art of record does not suggest or disclose the claimed combination of method steps or system elements, most notably:

As per independent method claim 1, "... monitoring the operation of the synchronous machines in the facility, the step of monitoring the operation including the steps of: forming a measure of the power capability of the synchronous machines; Determining an overall power factor of the synchronous machines; selecting an optimum operating condition of the synchronous machines to bring the power factor to an optimum; adjusting excitation current of the synchronous machines based on the selected optimum operating condition by performing the steps of: when the determined overall power factor is leading, decreasing excitation current to the synchronous machines; when the determined overall power factor is lagging, increasing excitation current to the synchronous machines; when the determined overall power factor is neither leading nor lagging, repeating the step of determining an overall power factor of the synchronous machines; and repeating the step of determining the overall power factor and adjusting excitation current to maintain the selected optimum operating condition for the synchronous machines and conserve energy in the facility."

As per independent system claim 12, "...a computer containing a programmed set of instructions including instructions for monitoring the operation of the synchronous machines in the facility, the instructions for monitoring the operation including instructions for the steps of: forming a measure of the power capability of the synchronous machines; and determining an overall power factor of the synchronous machines; the programmed set of instructions further including instructions for selecting an optimum operating condition of the synchronous machines to bring the power factor to an optimum; the programmed set of instructions further including instructions for selecting an optimum operating condition including instructions for the step of adjusting excitation current of the synchronous machines based on the determined overall power factor by performing the steps of: when the determined overall power factor is leading, decreasing excitation current to the synchronous machines; when the determined overall power factor is lagging, increasing excitation current to the synchronous machines; when the determined overall power factor is neither leading nor lagging, repeating the step of determining the overall power factor of the synchronous machines; and the computer further sending signals to the synchronous machines and adjusting excitation current of the synchronous machines to achieve a selected optimum operating condition for the synchronous machines and conserve energy in the facility."

As per independent method claim 23, "...monitoring the operation of the synchronous machines in the facility to cause the power factor of the machines to obtain a selected optimum operating condition to conserve energy in the facility; detecting that a motor has been switched to a state for starting; increasing the field current of the

running synchronous machines prior to start of the motor to produce reactive power; allowing a specific time interval to begin; maintaining the field current of the synchronous machines at the increased field current level to produce reactive power until the specified time interval elapses; when the specific time interval elapses returning to the step of monitoring the operation of the synchronous machines in the facility."

As per independent system claim 30, "...a computer containing a programmed set of instructions including instructions causing the computer to perform the steps of: monitoring the operation of the synchronous machines in the facility to cause the power factor of the machines to obtain a selected optimum operating condition to conserve energy in the facility; detecting that a motor has been switched to a state for starting; increasing the field current of the running synchronous machines prior to start of the motor to produce reactive power; allowing a specific time interval to begin; maintaining the field current of the synchronous machines at the increased field current level to produce reactive power until the specified time interval elapses; when the specific time interval elapses, returning to the step of monitoring the operation of the synchronous machines in the facility; and causing the field current of the running synchronous machines to increase for the synchronous machines to produce reactive power until the specified time interval elapses."

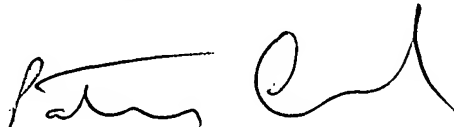
2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Assouad whose telephone number is 571-272-2210. The examiner can normally be reached on Tuesday-Friday, 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick J Assouad
Primary Examiner
Art Unit 2857

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